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Template synthesis in the Cu(II)-dihydrazinomethanethione-acetone ternary system

Mikhailov O., Kazymova M., Shumilova T., Solov'Eva S.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Complex formation in the Cu(II)-dihydrazinomethanethione (H 2NHN-CS-NHNH2)-acetone ternary system in an ethanol solution containing CuCl2, dihydrazinomethanethione, and acetone, as well as on contact of gelatin-immobilized copper(II) hecacyanoferrate(II) with alkaline (pH >10) aqueous solutions containing the above organic compounds was studied. It was found that template synthesis is realized in both cases but gives different products: in the first case, a heteroligand chelate of CuL 1(OH) with 9-hydrazino-9-mercapto-4,6,6-trimthyl-2,3,7,8- tetraazanona-3,8-dienethiohydrazide and hydroxide ion is formed, while in the second, a chelate of CuL2 with 2,8,10,10,16-pentamethyl-3,4,6,7,11, 12,14,15-octaazaheptadeca-2,5,7,12,15-pentaene-5,13-dithiol. In both cases, dihydrazinomethanethione and acetone function as ligsons. A scheme of involved processes is suggested. © 2009 Pleiades Publishing, Ltd. Reererences:.

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